EXISTING CONDITION	DESIRED CONDITION
Fisheries: No fish bearing streams.	Fisheries:
Range Management: Problems with accessing of allotment through private lands. Continuous grazing system has been used historically on allotment <i>Middle Tank Pasture</i> - Stock Tank #106003 is functioning. Tank is in need of a wildlife ramp installed. <i>South End Pasture</i> -The spring and fence around the spring is not functional. Unauthorized cattle observed and salt block observed in North Pantleon Creek. <i>North End Pasture</i> -Area has very little primary range available. Concerns with keeping cattle from moving to adjacent private lands because of lack of fence maintenance on private land boundary fence.	Range: Middle Tank Pasture - Improve distribution of grazing use. Installation of wildlife ramp in stock tank #106003. Protection of springs by fencing. South End Pasture - Redevelop springs to get water out on the north aspect on the south side of North Pantleon Creek. Protection of spring by fencing. Resolve unauthorized grazing use on the allotment. Implement a more efficient (deferred) grazing system. Permittee establish coordination with adjacent private landowners to achieve proper fence maintenance.
Recreation: Recreation opportunities are limited due to public access. The area is non-motorized and the north part of the allotment is in the Sangre de Cristo Wilderness. Big game hunting is the main activity.	Recreation: Maintain wilderness characteristics in the Wilderness Area. Provide non-motorized opportunities. Keep accesses that are present on the north and south ends open. Avoid creating avenues for illegal motorized use
Wildlife: TES habitat exists for: boreal toad, northern leopard frog, northern goshawk, boreal owl, olive-sided fly catcher, white-tailed ptarmigan, flammulated owl, American three-toed woodpecker, Mexican spotted owl, wolverine, Canada lynx, American martin, fringed myotis, bighorn sheep, and Townsend's big-eared bat;	Wildlife: All Areas: supportive of active beaver colony(ies)/densities within the Historical Range of Variability (HRV) in applicable potential habitat types/areas; willow carrs and riparian vegetation in lynx habitat at mid-seral or higher condition.
 Middle Tank Pasture?? -Overall, uplands in good condition except south aspect above N. Pantleon Creek; creek more exposed. -Trampling around some aspen, potentially limiting lynx and other wildlife habitat. -Some thistle along dry area of channel; bare banks in places, 	 Middle Tank Pasture -Improved distribution and use of allotment grazing; spring redevelopment has gotten water out on north aspect on south side of N. Pantleon Creek to improve wildlife habitat capabilities. -Spring sources will be protected to improve and/or maintain physical, chemical, and biological integrity. -Wildlife ramp installed in stock tank to reduce wildlife mortality.

potentially limiting wildlife habitat.

- -Bank trampling upstream of fenced-off spring, potentially limiting wildlife habitat.
- -Watertank lacking wildlife ramp creating potential for wildlife mortality from drowning.

South End Pasture (NF Pantleon Creek)

- -Channel unstable potentially limiting wildlife habitat capabilities.
- -Exposed vertical banks in places in channel of North Pantleon Creek producing habitat conditions not within HRV.
- -Hoof shearing near spring development #106002; less trampling as heading downstream, potentially limiting wildlife habitat capabilities.
- -Canada thistle and mullen present, potentially limiting wildlife habitat capabilities.
- -Few seral classes of willow and alder present; lacking shrub component (seral classes and density) in general, potentially limiting lynx and other wildlife habitat capabilities.
- -Rushes and sedges present.
- -Spring and associated fence around it non-functional, potentially limiting wildlife habitat capabilities.
- -Upper 1/3 large (older) headcut north of riparian area \sim 250'L x 30'W x 8'D is active and trying to stabilize; riparian area hit hard over the years, potentially limiting wildlife habitat capabilities.
- -Historic grazing and road location contributed to headcut, potentially limiting wildlife habitat capabilities.
- -Trespass cattle and salt block found in creek, potentially consuming forage otherwise available for wildlife.
- -Historically, a continuous grazing system was used on the allotment, potentially limiting wildlife habitat capabilities.

-Bank vegetation and stability improved to within HRV and vertical instability of creeks returned to within HRV, will improve wildlife habitat capabilities.

South End Pasture (NF Pantleon Creek)

- -Increased woody component (i.e., willows and alders) present to within HRV, will improve wildlife habitat capabilities.
- -Springs are protected from adverse grazing impacts (temp. electric fence), will improve wildlife habitat capabilities.
- -Travel management plan is established and enforced, will improve wildlife habitat capabilities.
- -Implementation of deferred rotation grazing system will improve wildlife habitat capabilities.
- -Reduce erosion from steep trails (esp. access trail from east side) to improve wildlife habitat capabilities.

Vegetation: Lack of historical information to determine trend. Allotment recovering from drought conditions. Overall uplands are in good condition on allotment. *South End Pasture* - The south aspect above North Pantleon Creek area has less vegetative cover and is more exposed. Canada Thistle, mullen, and cheat grass are present in the area. In North Pantleon Creek a few classes of willows and alder present. Some middle aged and older shrubs present but overall not many shrubs in area. Sedges and rushes present in riparian areas. *Middle Tank Pasture* – The area around Stock Tank #106003 appeared to be a drier site than other areas on the allotment. Fringed sage was the dominant forb species in new transect pair. Arizona fescue and needle-and-thread are the main grasses in the new transect pair.

Vegetation: Maintain good vegetative condition on uplands of allotment. Protection of springs from grazing use and establishment of proper willow regeneration across the allotment. *South End Pasture* - Increase vegetative cover on the south aspect above North Pantleon Creek. Increase woody component (willows and alders). Provide for proper willow regeneration in order to establish a diversity of willow age classes in North Pantleon Creek. *Middle Tank Pasture* – Maintain and improve native grass cover and vigor (Arizona fescue/needle-and thread). Continue treatment of noxious weeds on the allotment.

Hydrology:

The Pantleon allotment is comprised of 3 pastures totaling approximately 3,600 acres (5.7 square miles).

Approximately 17% (620 acres) of the allotment is open parks, and 12% (450 acres) of the allotment is accessible to livestock. These open parks are the primary areas grazed by livestock. In round figures, 34% of this area is riparian, 49% is grassland, and 17% is shrubland.

Appendix A of the hydrology report contains maps which show the open parks area for each pasture. Each map displays the wetter and drier portions of the pasture by climatic zones, improvements, and roads/trails. Known soil disturbances are also indicated on the existing condition maps by the small, red circles. Appendix B of the hydrology report contains a spreadsheet of the field observations made by the hydrologist; descriptions of the soil disturbances can be found there if observed.

Hydrology:

The main objective is to maintain the uplands and the riparian and stream corridors at desired condition. The following bullets summarize some of the related guidance discussed in the Forest Land & Resource Management Plan, the Watershed Conservation Practices (WCPs), and other key, hydrologic concepts:

- Maintain all riparian ecosystems in at least an upper midseral stage based upon the R2 Riparian Ecosystem Rating System (PSICC LRMP, III-50). Provide healthy, selfperpetuating plant communities, meet water quality standards, provide habitats for viable populations of wildlife and fish, and provide stable stream channels and still water-body shorelines (PSICC LRMP, III-203).
- Achieve desired condition of riparian areas by following the standards set forth in the Watershed Conservation Practices (WCP) Handbook, FSH 2509.25. Section 12 deals specifically with Riparian Areas. Management measure (3) of this section states, "In the water influence

Of the accessible acreage on the Pantleon allotment, 100% occurs in the montane climatic zone (See Appendix A, Maps 32 through 34). The accessible open park within the montane zone is mostly underlain by soil map units 440M, 630M, 815G and 825G. Parent material of the 440M is comprised of alluvium and colluvium; this soil map unit is wet and it supports riparian communities. Parent material of 630M is comprised of colluvium; this soil unit is drier and supports the white fir/Douglas fir/common juniper ecological unit. Parent material of 815G is glacial moraine; this soil unit is also drier and it supports the Parry Oatgrass ecological unit. Parent material of 825G is also glacial moraine; this soil unit is also drier and it supports the white fir ecological unit.

Aspen stringers account for over 90% of the riparian vegetation in this allotment, all of this is accessible to livestock. Most of the aspen stringers are underlain by soil map units 440M (North End Pasture only) and 630M (all pastures); the former has a high erosion hazard and the later a moderate erosion hazard. Again, riparian acreage accounts for 34% of the open parks. The Parry Oatgrass ecological unit accounts for 55% of the open parks; this unit occurs in the Middle Tank and South End Pastures.

Past use on the allotment was season-long and continuous. This resulted in overgrazing, and it created some resource concerns (gullying and limited riparian) on the North Fork of Pantleon Creek. A large headcut still exists on a southerly exposed drainage to this creek; this was likely the result of combined effects of an unimproved, two-track road and grazing. The range staff has seen this area improve over the last five years. A range,

- zone (WIZ) next to perennial and intermittent streams, lakes, and wetlands, allow only those actions that maintain or improve long-term stream health and riparian ecosystem condition." Adherence to the design criteria within this standard will help to sustain riparian areas at or move them toward their desired conditions.
- To provide healthy uplands and riparian communities and stable stream systems in order to sustain the flow of high quality water to the forest boundary under current climatic conditions.
- To ensure that grazing does not negatively alter the hydrologic processes in the uplands and along the riparian corridors, and to maintain the pattern, profile and dimensions of the stream network.
- To protect the hydrologic integrity and functionality of all riparian communities, particularly the subalpine, mesic vegetative community types by reducing livestock use in these areas, and by improving distribution onto and increasing the utilization of the mountain grasslands.
- To ensure that current water sources are adequately watering the livestock in a manner that is protecting those sources and the watershed. Where this is not occurring use tools available under current management or adaptive management to provide sufficient water in a manner that protects these resources. Develop springs in a manner that provides for their long-term sustainability.

cross-section composition monitoring point, PLSE-X1 exists on this creek. This area in the South End Pasture was identified as a special area of concern by the IDT.

Soils:

North End Pasture has 514 acres of capable grazing, 29% of total grazing area; South End Pasture has 287 acres of capable grazing, 34% of total grazing area; Middle Tank Pasture has 269 acres of capable grazing, 26% of total grazing area.

Total pasture size: North End Pasture 1759 acres, South End Pasture 856 acres, Middle Tank Pasture 1029 acres.

No capable grazing areas are found on a slopes greater than 40% or in areas of highly erodable soils.

Predominant soils in open meadows are very deep and moderately well drained. They formed in glacial till derived from gneissic and some sedimentary materials on concave slopes of glacial moraines. Permeability of these soils is moderately slow. Available water capacity is high. Effective rooting depth is more than 60 inches.

North End Pasture: Not evaluated, not visited; Middle Tank Pasture: Vegetative cover good, Soil moist at 6", no compaction, good root penetration to below 6" with thick root masses present, soils slightly compacted around stock tank; South End Pasture: Soil moist at 6", no compaction, good root penetration to below 6" with thick root masses present, good ground cover except in area of south aspect above North Pantleon Creek, which has less vegetative cover, some evidence

Soils:

Maintain present condition of soils in area by maintaining good vegetative condition of uplands in all allotments. Secure fence at road closure in South End Pasture to prevent unauthorized vehicular travel on closed road near damaged riparian area.

1	
	of slight slumping in area immediately above North Pantleon
	Creek could be as a result of unauthorized vehicular movement
	above gully,
	Evidence of recent unauthorized vehicular traffic on closed road
	next to North Pantleon Creek.